

Amendments to the Claims

1. *(Currently Amended)* A method for transmitting data units (~~DATA~~) by way of a transmission medium (~~204~~) that comprises at least three adjacent transmission lines (~~204j-204k~~), the method having the following steps:

- (a) supplying a plurality of codes (~~SD~~), each code (~~SD~~) comprising a number of code sections (~~SD₀-SD_k~~) that corresponds to the number of transmission lines (~~204j-204k~~) of the transmission medium, each code section (~~SD₀-SD_k~~) of a code (~~SD~~) on an associated transmission line (~~204j-204k~~) having a predetermined signal value, and the sum of the signal values being substantially constant for each transmitted code (~~SD~~);
- (b) for each data unit (~~DATA~~) to be transmitted, selection of a code (~~SD~~) from the plurality of codes; and
- (c) supplying the selected code (~~SD~~) for a transmission by way of the transmission medium (~~204~~).

2. *(Currently Amended)* A method as claimed in claim 1, in which the data units (~~DATA~~) and the codes (~~SD~~) to be transmitted are supplied in accordance with a predetermined clock pulse (~~CLK~~), wherein in step (b) at each new clock pulse (~~CLK~~) a new code (~~SD_{next}~~) is selected, based on the preceding code (~~SD_{last}~~) and the new data unit (~~DATA~~).

3. *(Currently Amended)* A method as claimed in ~~claim 1 or 2~~ claim 1, in which the code (~~SD~~) is a binary code, each of the codes (~~SD~~) comprising the same number of code sections with a high logic level and code sections with a low logic level.

4. *(Currently Amended)* A method as claimed in claim 3, in which a data unit (~~DATA~~) comprises one bit or a plurality of bits.

5. *(Currently Amended)* A method as claimed in ~~anyone of claims 1 to 4~~ claim 1, in which the sum of the signal values is substantially zero.

6. *(Currently Amended)* A device for transmitting data units ~~(DATA)~~ by way of a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(204j-204k)~~, having

- an input for receiving the data units ~~(DATA)~~;
- a memory ~~(226)~~, in which a plurality of codes ~~(SD)~~ is stored, each code ~~(SD)~~ comprising a number of code sections ~~(SD₀-SD_k)~~ that corresponds to the number of transmission lines ~~(204j-204k)~~ of the transmission medium, each code section of a code on an associated transmission line having a predetermined signal value, and the sum of the signal values being substantially constant for each transmitted code ~~(SD)~~;
- a selection device, which is actively connected with the input and the memory in order to select and supply from the memory ~~(226)~~ a code for a data unit ~~(DATA)~~ received at the input; and
- an output that is actively connected with the selection device in order to supply the code ~~(SD)~~ supplied by the same for a transmission by way of the transmission medium ~~(204)~~.

7. *(Currently Amended)* A device as claimed in claim 6, with a clock input ~~(CLK)~~ for receiving a clock pulse, a data unit appearing at the input at each new clock pulse, and the selection device selecting and supplying, on the basis of the preceding code ~~(SD_{last})~~ and a new data unit, a new code ~~(SD_{next})~~ for the new clock pulse.

8. *(Currently Amended)* A method for receiving data units by way of a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(204j-204k)~~, the data units having been sent in accordance with a method as claimed in ~~claims 1 to 5~~ claim 1, the method comprising the following steps:

- (a) receiving the transmitted codes ~~(SD)~~ transmitted on the transmission medium ~~(204)~~;
- (b) assigning the received codes to the appropriate data units; and
- (c) outputting the data units.

9. *(Currently Amended)* A method as claimed in claim 8, comprising the following step

- recovery of a clock signal based on transitions of the codes ~~(SD)~~ transmitted by way of the transmission medium ~~(204)~~.

10. *(Currently Amended)* A device for receiving data units from a transmission medium ~~(204)~~ that comprises at least three adjacent transmission lines ~~(2041-204k)~~; the data units being sent by a device as claimed in ~~claim 6 or 7~~ claim 6, having

- an input for receiving the codes from the transmission medium ~~(204)~~;
- an arrangement for assigning the received codes to the corresponding data units; and
- an output for outputting the data units.

11. *(Currently Amended)* A device as claimed in claim 10, having a timing recovery circuit ~~(242)~~ for recovering a clock signal based on transitions of the codes ~~(SD)~~ transmitted by way of the transmission medium ~~(204)~~.

12. *(Cancel)* ~~A method for transmitting data units by way of a transmission medium (204) having at least three adjacent transmission lines (2041-204k), the method comprising the following steps:~~

- ~~—transmitting the data units in accordance with a method as claimed in anyone of claims 1 to 5; and~~
- ~~—receiving the data units in accordance with a method as claimed in claim 8 or 9.~~

13. *(Currently Amended)* A device for transmitting data units, having

- a device for transmitting data units as claimed in ~~claim 6 or 7~~ claim 10;
- a transmission medium ~~(204)~~ that is actively connected with the device for transmitting and has at least three adjacent transmission lines ~~(2041-204k)~~; and
- a device actively connected with the transmission medium ~~(204)~~ for receiving data units ~~as claimed in claim 10 or 11~~.